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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/152,659

09/14/1998

DAVID J. CORISIS

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EXAMINER

CHERVINSKY, BORIS LEO

ART UNIT

PAPER NUMBER

2835

MAIL DATE

DELIVERY MODE

06/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/152,659

Applicant(s)

CORISIS ET AL.

Examiner

Boris L. Chervinsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-45 and 68-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-45 and 68-74 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 33-45 and 68-74 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,031,733. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application claim the electronic device that employs the support as a part of the electronic device; the claims of the patent directed to the support structure and it would be obvious to employ the support claimed in the patent in the electronic device as claimed in the instant application.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 33-38, 42, 68, 69, 71-73 are rejected under 35 U.S.C. 102(b) as being anticipated by Chiu.

Chiu discloses an electronic device, comprising: a plurality of integrated circuit packages 10; a contact surface 32,33 electrically connected to each of said packages; and a support 31 arranged to engage each of said packages at a point spaced above said surface to prevent movement of said packages relative to said surface and connected to the surface, wherein said support is secured to said surface; each of said packages is contacted on its upper end; the support 31 includes a pair of surfaces 16 which engage each of said packages on two opposed surfaces, sandwiching said packages; the support is resiliently biased against the sides of said packages (see Fig. 10); the support 31 contacts the side edges of said packages 10; the support 31 is made of a heat conducting material. With respect to claims 68 and 69, Chiu discloses an electronic device comprising a plurality of integrated circuit packages 10 connected to a surface 33; and at least one rail 31 coupled to the surface 33, wherein the rail extends along the sides of the plurality of integrated circuit packages and is configured to engage the plurality of integrated circuit packages 10; the at least one rail is coupled

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to the surface by at least one post coupled to the surface and extending perpendicularly therefrom.

With respect to claims 71-73, Chiu discloses an electronic device, comprising: a plurality of integrated circuit packages 10 connected to a surface 33; and a cross piece (upper part of the support 31) coupled to the surface and extending over the plurality of integrated circuit packages 10 in a direction transverse to the plurality of integrated circuit packages; a plurality of supports (vertical portions of 31) extend from the cross piece towards the surface 33 and 16 and are configured to engage the plurality of integrated circuit packages.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 39, 40, 43-45, 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu in view of Cipolla et al. or alternatively Shuff.

Chiu discloses the claimed invention except resilient or foam material. Cipolla (see abstract) as well as Shuff (see abstract) disclose the resilient or foam material used to engage modules. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the resilient material or foam as disclosed by Cipolla or Shuff in the device disclosed by Chiu in order to provide reliable contact and thermal conduction.

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7. Claims 41, 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu.

Chiu discloses the claimed invention except extending tabs/notch arrangement having tab extending from the support and the notch is disposed in the module. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide tab extending from the support and engaging the notch in the module as one of the choices to provide reliable structural contact.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris L. Chervinsky whose telephone number is 571-272-2039. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayprakash N. Gandhi can be reached on 571-272-3740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**BORIS CHÉRVINSKY
PRIMARY EXAMINER**

Boris L. Chervinsky
5/31/7